

Re 825  
B. P85  
v. 30/8  
cop. 2

S. C. STATE LIBRARY

AUG 26 1980

STATE DOCUMENTS

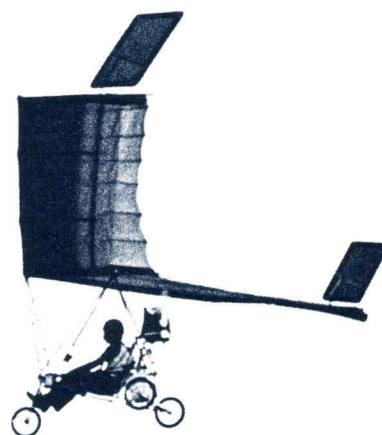


# Palmetto AVIATION

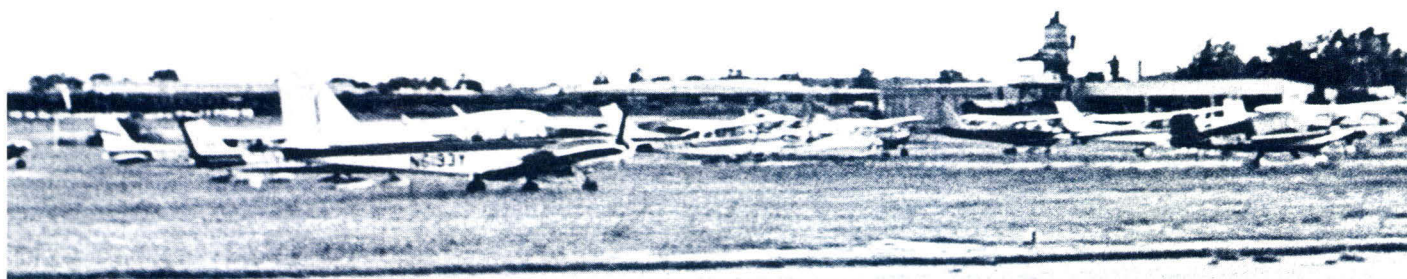
VOLUME 30/NUMBER 8

Published by the South Carolina Aeronautics Commission

AUGUST, 1980



## The New Ultralights— Barnstorming Machines Of The 80's





PALMETTO AVIATION is an official publication of the South Carolina Aeronautics Commission. It is designed to inform members of the aviation community, and others interested in aviation, of local developments in aviation and aviation facilities and to keep readers abreast of national and international trends in aviation.

The Aeronautics Commission is a state agency created in 1935 by the S.C. General Assembly to foster and promote air commerce within the state.

#### **Richard W. Riley** **Governor**

#### **Commissioners**

Joseph Wilder, chairman  
Barnwell

Ralph Schmidt, vice chairman  
Greenville

Edwin Pearlstine  
Charleston

Thomas L. Gregory  
Columbia

Michael L. Laughlin  
Aiken

James T. Anderson  
Chester

Fred G. Edwards  
Hemingway

#### **Staff**

John W. Hamilton  
Director

Bill Goodwin  
Editor

Offices at Columbia Metropolitan Airport  
Mailing Address  
P.O. Drawer 1987  
Columbia, S.C. 29202

## Sailplane Homebuilders Organizing

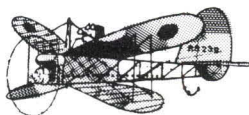
Rob Smith of Pascagoula, MS, Chairman of an ad hoc Committee studying formation of a potential division under the Soaring Society of America (SSA), reports that interest is high among sailplane homebuilders for an organization to serve their specific needs.

Many sailplane enthusiasts are also Experimental Aircraft Association (EAA) members and don't intend to disband from that organization, but feel the need for performance and construction information on soarable aircraft (with or without a small auxiliary engine), that is not the fundamental interest and thrust of the EAA.

Since sailplane pilots suffer the same constraint as their powerplane counterparts; to exercise their desire to fly less expensively than purchasing one of the available \$15,000 to \$30,000 production aircraft, the answer is believed to be in homebuilding such machines.

The impetus for the study was almost unanimous acclamation at a meeting of attendees to the SSA sponsored Homebuilders Workshop last Labor Day at Historic Harris Hill near Elmira, N.Y., where gliding and soaring first began in this country fifty years ago.

The Workshop was so successful that a second gathering will again be sponsored by SSA and held at Harris Hill, August 29 through September 1, this year. Speakers, demonstrators and exhibitors are lining-up for this year's Workshop, promising much "how-to-do-it" information. The Vintage Sailplane Division of SSA will be on hand again this year, displaying and flying many examples of restored aircraft of years gone by.



## Jim Thomason Named FBO At Clemson

Jim Thomason, former assistant manager of the Clemson-Oconee Airport has been named manager of the facility to replace Allen Loudermilk, the manager for the past two years.

Loudermilk, citing economic reasons, submitted his resignation June 22. The Oconee Aeronautics Commission named Thomason as replacement shortly thereafter.

Thomason has also worked at the airport for the past two years and is an aircraft mechanic. Thomason will work out the remaining two years of Loudermilk's agreement.

Loudermilk will be returning to crop spraying full time.

Formalizing the divisional status of the Homebuilders under the SSA will be addressed during the Workshop Meeting. If successful, the group is expected to solicit technical design and construction information from their members, to be published in their house organ "SOARING" and in a Newsletter circulated to division members.

A Design Class design competition is being discussed as the vehicle to both amalgamate the devotees to the sport and to provide a SSA sponsored Design Class of ships that will assure a safe, low-cost, easy-to-build group of sailplanes for members to build and fly in competition.

Interested persons are invited to contact SSA, Box 66071, Los Angeles, CA 90066 and/or Robert E. Smith, P.O. Box 1372, Pascagoula, MS 39567 for a registration brochure and further information.



## Bassett to Head AOPA Publicity

Steve Bassett, former South Carolina sportscaster, has been appointed Director of Public Relations for the Aircraft Owners and Pilot's Association (AOPA).

Bassett spent eight years in the broadcasting industry as a television sportscaster beginning in South Carolina with stops in Washington, D.C., Baltimore, Md. and St. Louis, Mo. His sportscasting credits include announcing sporting events for the Universities of South Carolina, Maryland, and Missouri, the Washington Redskins and NBC Sports.

Bassett holds a private pilot's license and is a member of AOPA.

"AOPA's desire to find a director with a media background who is also a pilot, and Steve's desire to spread the word about general aviation and our association was the key that brought us together," Charles Spence, senior vice president of Public Relations said. "We are very pleased about having him aboard."



## Aviation Calendar

- August 6 - 10** Lawyer-Pilots Bar Association semi-annual meeting, Harrison Hot Springs, British Columbia, Canada.
- August 8 - 10** Gathering of War Birds, Pampa Army Air Field, Pampa Texas.
- August 17 - 30** 1980 World Aerobatics Championships, Oshkosh, Wis. First time in America.
- August 20 - 24** Cessna Skyhawk Association and Cessna Skylane Society fourth annual combined convention, Weiss Airport, St. Louis, Mo. Stratford House.
- September 14** Anderson Air Show to benefit Boys Home of the South, Anderson Airport.
- October 11 -14** AOPA Flight Instructor Refresher Course, Quality Inn, Columbia, S.C.

## South Carolinians Win \$100 Prizes

Two persons from South Carolina are the May and June winners of the \$100 cash flight proficiency prizes awarded in the General Aviation Manufacturers Association (GAMA) Safepilot '80 sweepstakes.

John L. Whitmire of Greenville was the winner in May and Ralph C. Hunnicutt of Charleston won in June.

Each month, from Jan. to Dec., 1980, two winners are selected from each of the FAA's seven regions for the \$100 prize.

A grand prize drawing will be held sometime in January, 1981 to select a winner for a \$50,000 airplane. All persons who attend an FAA pilot educational seminar or safety clinic during the year are eligible for the monthly prize as well as the grand prize.



Commissioner Joe Wilder, chairman of the South Carolina Aeronautics Commission, speaks at the dedication ceremonies of the new Charleston air traffic control tower, July 10. Charleston city and County officials, representatives of Charleston Air Force Base and FAA officials were also on hand for the dedication. Wilder became the first state official to call for an investigation into certain types of Piper Navajo aircraft. A Navajo crashed short of the runway at Charleston, killing the pilot, about two hours before the tower dedication. (Aeronautics Commission photo)

## Commission Approves More Than \$285,000 For Airport Projects

At its regular monthly meeting July 16, the S.C. Aeronautics Commission approved more than \$285,000 in state bond funds for airport improvements.

The Commission approved \$145,709 for a 1,000 foot runway extension at Clemson-Oconee Airport. Total cost of the project is \$1.4 million and 80 percent of the project will be funded with federal funds.

The Commission also approved \$100,000 for improvements at Columbia Metropolitan Airport including grooving of runways, concourse elevators for the handicapped and reconstruction, overlay and extension of runway 5/23. Total cost of that project is \$2.65 million.

For the Myrtle Beach Jetport, the Commission approved \$3,750 for the paving of an airport perimeter road. Total cost is \$7,500. The re-

maining \$3,750 will be paid for by Horry County. The Commission also approved \$2,018 as the state share of a \$20,180 master plan study for the Conway Horry County Airport.

And lastly, the Commission approved up \$34,319 for finishing a runway grooving and hillside removal project at Greenville Spartanburg jetport.



# Good Grief! They've Reinvented The Airplane

The dream of flight for everyone — the idea of soaring like a bird on currents of air — has possessed the mind of man almost from the beginning of his existence.

For centuries, man has pondered the nature of flight and, as tools and techniques improved, he has made all manner of flying machines. Yet, flight generally remains a complex, expensive business open only to those with the money to spend and the time to learn its intricacies.

The idea of flight is almost universal in its appeal. Men, women and children all want to soar, to taste the freedom in the skies. That is why, in a time when we are building rockets to travel in space, a cadre of adventurers are still working on the most basic level to perfect a simple way to fly.

Bill Magrini and his wife, Pat, are very familiar with the dream.

"I'VE ALWAYS wanted to fly," Bill said explaining how he got interested in ultralight flying machines. "I didn't have near enough money to buy an airplane and I was looking for an inexpensive way to fly."

Bill and Pat are South Carolina distributors for two kinds of ultralight airplanes. Both are basically hand glider wings with small engines and an undercarriage attached. Both are manufactured in California and are sold in kit form.

The Easy Riser, a bi-plane design Pat calls "the forerunner of them all" costs about \$2,000, is powered by a 10 hp engine and requires about 100 hours to assemble.

The newer Pterodactyl Fledgling (P-Fledge) utilizes a single wing with a double surface area. It is powered by a 24 hp snowmobile engine and costs \$3,150 for the kit. It can be assembled in about 40 hours. Both are one

place aircraft classed as recreational vehicles by the FAA, the same category as hang gliders.

**YOU DON'T** need a pilot's license to fly these aircraft, but Bill recommends four or five hours with an instructor in an airplane to feel comfortable.

Most of Bill's customers so far have been pilots. "They have a hard time justifying using 10 or more gallons per hour, at \$1.70 a gallon, to kick around in the sky," he said. "They want something simple and easy to operate."

Since he started selling the P-Fledge about two months ago, Bill has sold five. In the last 12 months, he has sold 28 Easy Risers, 17 since the first of the year. Bill's airplanes got a lot of attention recently when they were on static display, along with other homebuilts, at the Columbia Mall shopping center; A show sponsored by the Columbia EAA chapter. As a result of that exposure, Bill, demonstrated the P-Fledge at Owens Field to about 10 prospective customers a couple of weeks ago.

Bill Magrini and Pet Pterodactyl (P-Fled



Bill and P-Fledge climb skyward at Owens Field.



The P-Fledge, which is the better performer of the two, can takeoff in 75 to 100 feet, climb 350 to 400 fpm (with a 190 lb. pilot) and cruise at 35 to 45 mph. It has a top speed of 55 mph and a stall speed of 20 mph. At 40 mph cruise, its five-quart-per-hour fuel consumption gives it an endurance of about 4 hours and a range of 150 to 160 miles.

**THE FRAME** is aluminum tubing, the wing is covered with ripstop Dacron and the landing gear is 16-inch bicycle wheels. The pilot sits on a fabric sling between two tubes. The whole thing weighs just 155 lbs.

To climb in either airplane, Bill explained, you use a combination of throttle and weight shift. You advance the throttle and shift your weight back toward the tail.

The P-Fledge has what looks to be a rudder on top of each wingtip. These winglets provide the control forces to turn the aircraft. They act more like brakes. When you put a winglet out, the wing is attached to slows down and the other wing speeds up. The aircraft rolls toward the slower wing and makes a coordinated turn. When they are both out, their combined drag pitches the nose up. This is how the landing flare is initiated. Again, pitch trim is done by the pilot moving forward or back in the seat.

Both the P-Fledge and the Easy Riser have a lift-to-drag ratio of 9:1. The aircraft will travel nine feet forward for every one foot down. This high lift factor makes it possible to climb using engine power then, if there's any lift at all, you can cut the engine and soar like a glider . . . or a bird.

"I **THINK** these airplanes are the better of two worlds," Magrini said. "They have none of the disadvantages of hang gliders."

However, since they are ultralight, they don't like high, gusty winds. The bi-winged Easy Riser, with its 10 hp power plant, is limited to winds of 10 to 15 mph maximum. The more powerful P-Fledge can fly in winds up to 20 mph.

Jack McCormack, the airplane's manufacturer says "A low wing loading and a low stall speed increases the effect of wind. Flying a P-Fledge when its blowing 15 is a lot like flying a Cessna 150 when its blowing 50. You can do it, but its not very pleasant and you sure won't be taking off cross wind."

But on a calm day, or when there is a gentle breeze — just enough to help your ultralight leap off the ground, you can experience the sheer exhilaration soaring with only the wind in your ears.

"Is it really as much fun as you think it would be?" Magrini was asked.

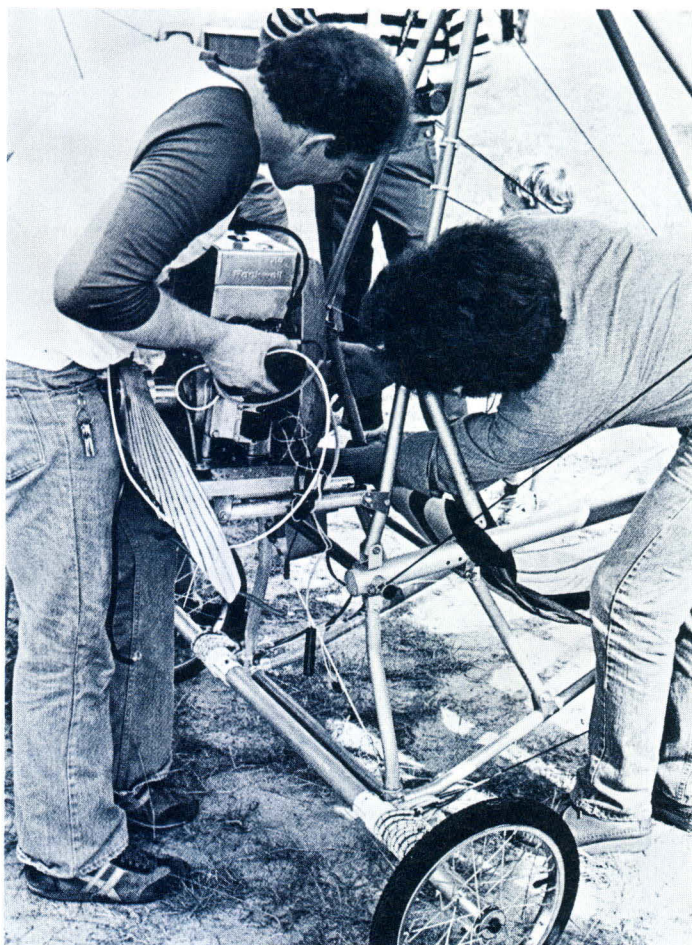
"Oh yes, every bit," he said with a little smile.

**HOMEBUILTS** and kit built aircraft have enjoyed less than a sterling reputation in the past. Many times, aircraft such as the gyrocopter have gotten a downright bad reputation because of their poor safety record. FAA inspectors still wince whenever someone mentions "gyrocopter."

But for the ultralights, the FAA has adopted a wait and see attitude. Since the airplanes are foot launched, no certification is required. If the sport grows responsibly and maintains a good safety record, FAA will probably continue to maintain a hands off attitude. But if people start getting killed in the airplanes, then the agency will probably feel the need to step in with some regulatory action.

Magrini hopes that doesn't happen. "If the FAA gets into it, this plane would cost \$7,000," he said, pointing to the \$3,000 P-Fledge.

"Right now, I think the industry is regulating itself pretty well. I'm impressed with the responsibility of the manufacturers of these airplanes. The bad designers get a bad reputation pretty



**Bolting on the engine.**

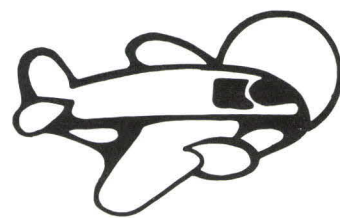
quickly and are washed away," he said.

Bill's wife, Pat, agrees. "We feel like they are very safe. She pointed out that of 2,000 Easy Risers sold, there have only been four people killed in the airplane. "And they all occurred in aircraft which had been built by someone else besides the owner."

How does she feel about her husband, a federal bank examiner during the week, taking to the skies in the fragile-looking craft every weekend?

"Looking at it from the standpoint of a woman with three children, it doesn't bother me in the least," she said. I would rather have him do that than ride a motorcycle."

If you would like a catalog to learn more about these ultralights, write Bill at 2432 Pleasant Ridge, Columbia, S.C. 29209, or call him 803/776-4108.







Navajo crash site in heavily wooded area near Charleston Airport.

## One Killed in P-Navajo Crash Short of Charleston Runway

A Hawthorne Aviation pilot was killed and five others injured when a Piper Navajo crashed July 10, about two miles short of the runway at Charleston, after developing an engine problem.

Killed was John Joseph Hanley, 61, an Air Force veteran and senior pilot for Hawthorne. Co-pilot Morelle Jones, 30 and four passengers were injured in the crash.

The aircraft was under lease to Westvaco Corp. from Hawthorne Aviation. It had left Charleston at 8:17 a.m. enroute to Paducah, Ky. to visit a new Westvaco facility under construction. Three Westvaco officers and a construction consultant were aboard as passengers.

According to co-pilot Jones, the aircraft was over Orangeburg at about 14,000 when Hanley noticed that the manifold pressure on the right engine had dropped to 20". Hanley

decided to return to Charleston to have the engine repaired.

The aircraft slowly lost altitude as it approached Charleston. It went down in a heavily wooded area on the outskirts of the Pepper Hill subdivision, about two miles from the airport. All aboard, except the pilot were able to get out before the aircraft burned.

Injured were R. Scott Wallinger, 41, vice president and manager of the Timberlands Division of Westvaco; William Ernst, 61, Timberlands Division Land Manager; William S. Laribe, 45, administrative aide for forest research; Anthony Maggione, a construction consultant with Lucas and Stubbs and Associates in Charleston.

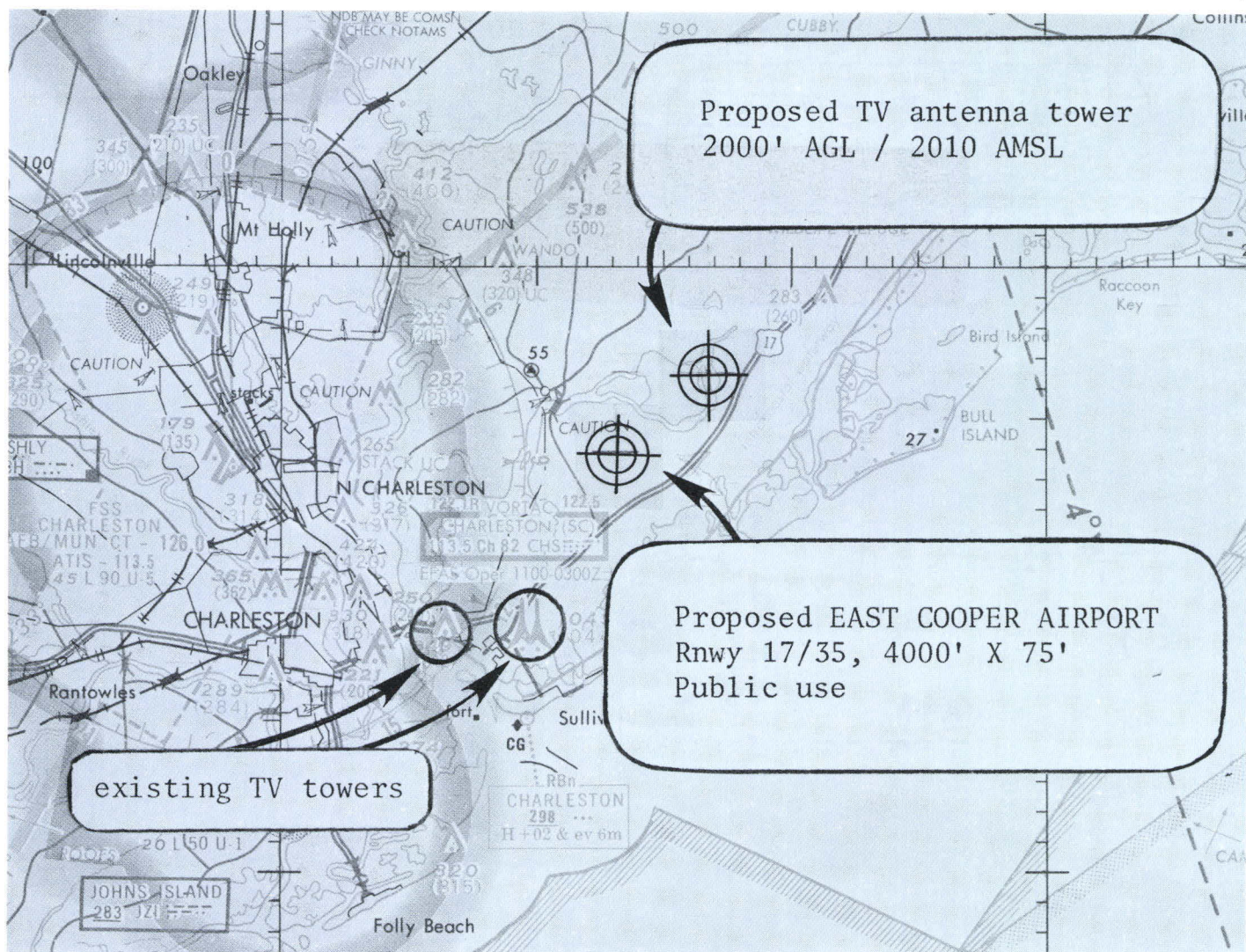
NTSB Officials were on the scene a few hours after the crash. Both engines and propellers were removed and sent to the manufacturer for a complete examination.

### Breakfast Club



Aug. 17	Open
Aug. 31	Hawk's Nest, Camden
Sept. 14	Gastonia
Sept. 28	Lancaster
Oct. 12	Greenwood
Oct. 26	Orangeburg





## 2,000 Foot TV Tower Proposed Near Charleston

The FAA is currently studying a proposal by Charleston broadcasters to build a 2,000 foot TV antenna tower, near Wando, east of the Charleston Airport (see map).

The proposed tower would be large enough to handle the transmitting antennas of Charleston's three commercial TV stations and the educational TV station. If the proposed tower is built, the three commercial stations which presently have existing towers have agreed to reduce the heights of those towers significantly.

According to the FAA, the towers of WCBD (842' AGL), WCIV (984' AGL) and SCSC TV (1045' AGL) would be reduced to 100, 500 and 400 feet respectively if the new taller tower is built (see map).

Virgil V. Evans, general manager of WCBD and an instrument rated pilot, said in a letter to the S.C. Aeronautics Commission, the Charleston television stations are seeking to avoid developments to those which occurred in Augusta, Ga.

"It's just a matter of time until one TV station would put up a 1,500 foot or a 2,000 foot tower and then we could conceivably wind up

with four tall towers which, as a pilot, I find very distasteful," Evans wrote.

"For this and a few other reasons, the four TV stations in Charleston are joining together in an effort to dismantle the three existing towers, taking them down to 150, 400 and 500 feet or below. This effort would also probably avoid the building of a fourth tower which presently does not exist.

"From an aviation standpoint, we think one 2,000 foot tower is better than four 1,500 foot and perhaps even four 2,000 foot towers. The stations are proposing to light the tower with sequenced strobes or whatever is acceptable to the FAA," he wrote.

Evans said the stations hope the tower will become a checkpoint and an aid to navigation, both for aviators and mariners, rather than a hazard.

The proposed tower would be about four NM northeast of the proposed East Cooper Airport which is planned to replace Wilson Memorial Airport. The Charleston County Aviation Authority has reviewed the site of the tower and determined that it would not interfere with operations at the proposed East

Cooper Airport.

FAA Southern Region facilities branch has also looked at the proposed tower in relation to the proposed Airport and finds that it would not interfere with the airport's VFR operations.

Preliminary review by the FAA shows that the tower would effect existing approach procedures at Charleston as follows:

Would require increasing the Charleston Radar Approach Control Minimum Radar Vectoring Altitude from 1600 feet to 3000 feet within three nautical miles of the structure and,

Would increase the ILS runway 33 transition altitude on the 12 DME ARC from the 052 degree radial (IAF) clockwise to the CCI LOC from 2000 to 2500 feet.

The South Carolina Aeronautics Commission has asked the FAA to postpone making a determination of hazard or no hazard until pilots have had a chance to make their views known, both pro and con. Comments can be addressed to the South Carolina Aeronautics Commission, P.O. Drawer 1987, Columbia, S.C. 29202.





**SOUTH CAROLINA  
AERONAUTICS COMMISSION**

P.O. Drawer 1987  
Columbia, South Carolina 29202

SC STATE LIBRARY  
1500 SENATE STREET  
P.O. BOX 11469  
COLUMBIA SC 29211

BULK RATE  
U.S. POSTAGE  
**PAID**  
Columbia, S.C.  
PERMIT NO. 75

## Accidents Increase In South Carolina

BY FRANK KELLEY  
FAA Accident Prevention Specialist

General Aviation aircraft accidents in South Carolina are up for the first six months of 1980 (there were 14) compared to the same period in 1979 when there were 10.

Calendar year 1979 was the safest year in number of accidents in South Carolina since 1970. For calendar year 1979, there were 27 general aviation accidents compared to 57 for 1978. The next best year since 1970 was 1976, with 39 accidents.

The National Transportation Safety Board reports that U.S. General aviation total accidents and fatal accidents were down for 1979. Total accidents were 4,238 (256 less than 1978), fatal accidents were 658 (down 135), and fatalities 1,311 (down 459). For 1979, the accident rate per 100,000 aircraft hours flown was: total accidents 10.6 (down from 11.4) and fatal accidents 1.65 (down from 2.01) compared to the previous year.

This is the time of year when density altitude, thunderstorms, etc. takes its toll in accidents when pilots get careless. Take time to plan your flight and assure yourself that you have sufficient runway during these hot days and keep updated on weather constantly. Do not be a part of our accident statistics. SAFETY IS NO ACCIDENT.

## AOPA Says Spin Training Not Needed For Pilots

The probability that an aircraft will be involved in a spin accident is so remote that requiring spin training for a private pilot's license could increase fatalities, an AOPA Air Safety Foundation executive told a Congressional subcommittee.

William R. Stanberry said that accidents in general aviation increased at a rate far below

the growth of activity during a thirteen-year study period and that stall, spin or spiral accidents actually declined both in total numbers and rate.

The executive vice president of the Foundation testified before the Subcommittee on Investigations and Oversight, Committee on Science and Technology. The subcommittee was questioning whether or not spin training should be reinstituted as a requirement for a pilot's license.

Stanberry said only two percent of the fatal accidents which occurred in general aviation between 1965 and 1977 were spin accidents. The number of spin accidents decreased 15% during this period while flight time exposure increased almost 114%.

Spin accidents during flight training were three times greater when an instructor was aboard than when the student was flying solo, according to the data supplied to the committee by Stanberry. He said this would indicate a possibility of increasing the number of fatal accidents if spinning aircraft was required as a training maneuver.

Stanberry based the Foundation's statements on a comprehensive study of stall/spin accidents made for the Foundation by Robert Monroe, AOPA vice-president, data research.

Instead of requiring spin training for all pilots, there should be increased emphasis by flight instructors to teach recognition and avoidance of aerodynamic stalls, Stanberry said.

## Miller To Begin Giving FAA Exams

Miller Aviation, an FBO at Columbia Metropolitan Airport, will begin administering FAA airman written examinations on weekends beginning Aug. 9th and 10th.

Persons wishing to take the examination may come to the Miller offices beginning at 8 a.m. No appointment is necessary. A \$10 fee will be charged for each examination given.

By prior appointment, arrangements can be made for taking examinations one night each week. To make such an appointment, call Frances Miller at 794-6333.

Testing at Miller is offered as a supplement to the examinations given at the FAA District Office in Columbia.

## CAP Helps Locate Boats; Transports Eyes

The Berkeley County Civil Air Patrol assisted in locating two overdue boats on Lake Moultrie recently, helping avert what could have been tragic consequences.

In the first instance, Capt. W.H. Horton was on a routine lake patrol when he was contacted by the Berkeley County Rescue Squad. The CAP aircraft was diverted to the search area and located the boat within 10 minutes. Rescue squad boats were dispatched and found, on arrival, that one of the boaters had left the boat and was swimming towards shore to summon help. It was already dark but the

swimmer was located in about 15 minutes, two miles from shore. Both were unhurt.

In an incident on June 29, Capt. Horton and Lt. Gasparich located another overdue boat only a few minutes after takeoff. However, the lake was extremely rough and it took the rescue squad boats almost two hours to reach the missing boat. Both boaters were found unhurt, but had experienced motor trouble with their inboard-outboard.

At the request of local authorities, the Edgefield County Civil Air Patrol squadron flew a vital cargo of human eyes to Florence, on Thursday, July 10.

The eye transplant program is sponsored nationwide by Lions International and the local Lions Clubs participate in the State program. Persons desiring to become donors may contact any Lions Club member for details.

Civil Air Patrol is proud to be able to assist in this humanitarian effort. The squadron airplane was flown on this mission by Capt. John Feltham and S/M Harold Ornes.